



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/469,070	12/21/99	WITZGALL	H TI-23879

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EXAMINER	
ABDULSELAM, A	
ART UNIT	PAPER NUMBER

2674

DATE MAILED:

10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/469,070

Applicant(s)
Hanna Witzgall

Examiner
Abbas Abdulsalam

Group Art Unit
2674



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negishi et al.(USPN 5486878).

Regarding claims 1, 7 and 10, Negishi teaches about a color display system with a light source (LS), and spatial light modulation (SLM1, SLM2) passing through respective optical paths. See column 14, lines 13-28. Negishi teaches a dielectric mirror, and the application of a voltage between a light modulation layers through two transparent electrodes (Et1, Et2) which would produce a change that is expressed in wavelength. See column 30, lines 37-67, and Fig 36. Furthermore, Negishi teaches about a signal processing circuit (2) outputting a control signal which in turn is related to a drive circuit that is responsible for color switching and selecting operations. See column 30, lines 14-23 and Fig 36. Furthermore, Negishi transparent substrate (BP1, BP2) along with transparent electrodes. Negishi teaches a mixture of light to a substrate (BP2) side of the spacial light modulation element SLM.beta through the color resolving filter Fdf. See column 44, lines 20-30 and Fig 23-26. In addition, the primary colors emitted from three regions (red, green, blue) are focused on three spacial light modulation. See Fig 2. However, Negishi does not specifically mention the projection optics on the light path operable to focus

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light from spatial light modulator on an image plane. Negishi on the hand teaches about lights outgoing from the spatial light modulation elements (SLM1, SLM2, SLM3) and are projected on the screen S as a color image by way of the dot-dot-dashed line arrows. Column 22, lines 17-31.

Therefore it would have been obvious to one having skill in the art at the time the invention was made to utilize Negishi's projected elements (SLM1, SLM2, SLM3) for the purpose projection optics on the light path. One would have been motivated in view of the suggestion in Negishi that the projection of elements (SLM1, SLM2, SLM3) serve the desired projection optics on the light path that is operable to focus light.

Regarding claim 4, it has been discussed above.

Regarding claims 2 and 3, Negishi teaches dichroic prism (DF) which is used to synthesize two light beams. See Fig 47.

Regarding claim 5, Negishi teach spatial light modulation element, SLM with respect to a nature of dialectic mirror. Column 3, lines 7-17.

Regarding claim 6, Negishi teaches color section method in terms of liquid crystal layer. See column 30, lines 25-33.

Regarding claim s 8-9, Negishi teaches that electro-optic crystals such as Lithiumniobate, BSO, PLZT etc. as well as high molecular-liquid crystal copposite film can be used for modulation pupuses. See column 2, lines 40-44.

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Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following arts are cited for further reference.

U.S. Pat No. 4,807,976 to Little et al.

U.S. Pat No. 5,426,447 to Lee

U.S. Pat No. 6,064,460 to Ohta et al.

U.S. Pat No. 6,255, 131 to Mori et al.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe** can be reached at **(703) 305-4709**.

Any response to this actions should be mailed to :

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to

(703) 872-9314


Hand-delivered responses should be brought to Crystal park II, Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Abbas Abduselam

Examiner

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RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600